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metal etching residues, comprising steps as follows:

a substrate is provided;

a barrier layer is formed on the substrate;

a pre in-situ metal layer is formed on the barrier layer;

a first metal layer is formed in mediately after the pre in-situ metal layer is formed and in the same vacuum surrounding as the one in which the pre in-situ metal layer is formed; and

a photolithography and etching step is performed to define the barrier layer, the pre in-situ

metal layer and the first metal layer.

12. (Once Amended) A process for forming a conducting structure layer, comprising the

following steps:

a substrate is provided;

a pre in-situ metal layer is formed on the substrate;

a metal layer is formed on the pre in-situ metal layer; and

a photolithography and etching step is performed to define the pre in-situ metal layer and

the metal layer.